**DISA**

**Defense Information Systems Agency**

**A Combat Support Agency**

# Supporting Collaborative and Agile SOA Development

**Forge.mil**

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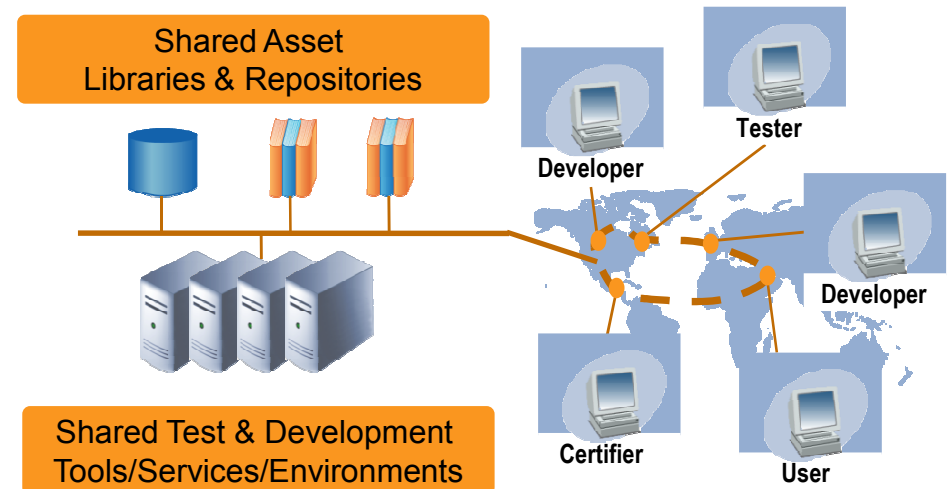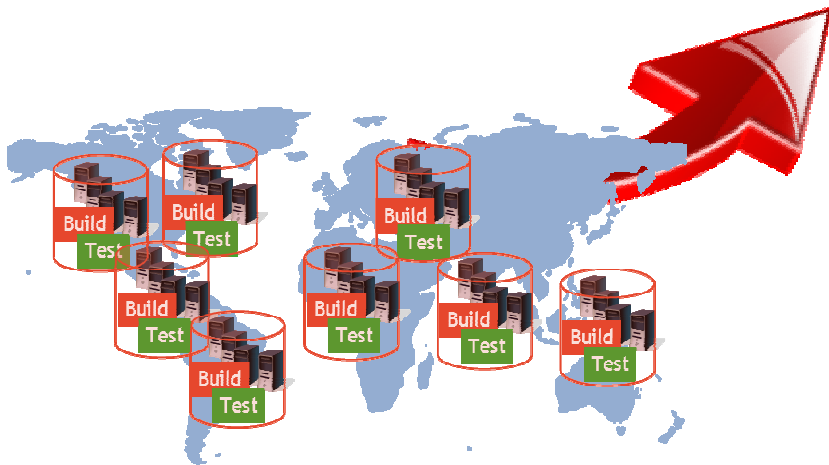April 2010

**UNCLASSIFIED**

# Forge.mil Vision

## TODAY

- Siloed development environments
- Expensive and time consuming start-up
- Limited exposure, sharing, or re-use
- Duplication of effort

Shared Asset Libraries & Repositories

Shared Test & Development Tools/Services/Environments

Developer

Tester

Developer

Certifier

User

## FORGE.mil

- Agile development and testing
- Cross-program sharing:  software and services
- Early and continuous collaboration
- Integrated approach to development life cycle
- Extensible platform to support delivery of partner capabilities

# Supporting an Agile Acquisition System

HR 2647, National Defense Authorization Act for Fiscal Year 2010, Sec. 804.

*"The Secretary of Defense shall develop and implement a new acquisition process for information technology systems. The acquisition process developed and implemented pursuant to this subsection shall, to the extent determined appropriate by the Secretary —*

*. . . be based on the recommendations in chapter 6 of the March 2009 report of the Defense Science Board Task Force on Department of Defense Policies and Procedures for the Acquisition of Information Technology; and*

*. . . be designed to include —*

> *early and continual involvement of the user;*
>
> *multiple, rapidly executed increments or releases of capability;*
>
> *early, successive prototyping to support an evolutionary approach; and*
>
> *a modular, open-systems approach."*

# Community Approach

## Collaborative Development & Test Platform

**Software, Systems, Services**

**Agile Development Efforts**

**Operational Environment**

**Tools, Standards, Processes**

DOD Acquisition Community

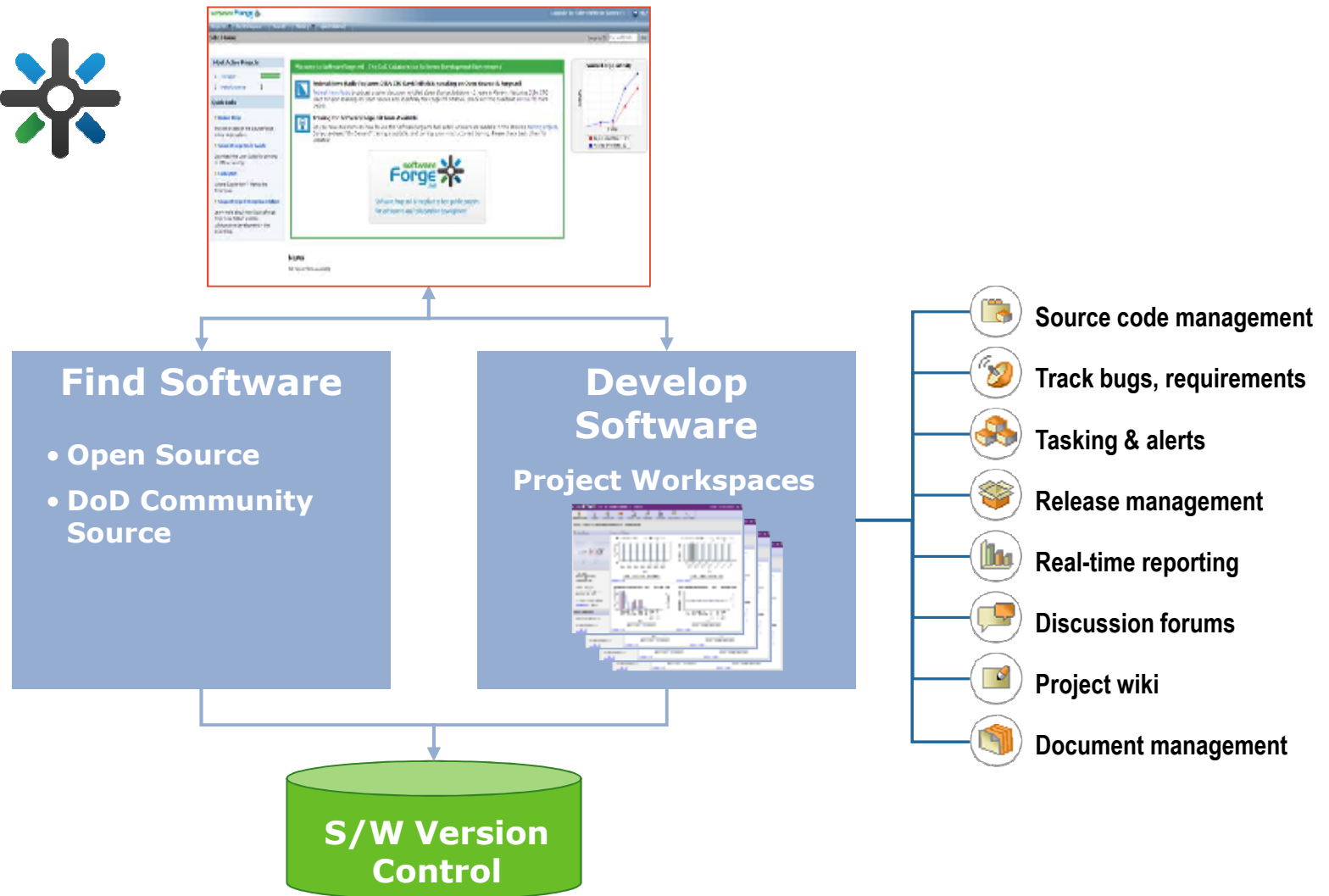DOD Development Community

DOD Test and Evaluation Community

DOD IA Community

DOD NETOPS Community

*Government, Industry & Academia*

# Initial Operational Capability



## Find Software

- Open Source
- DoD Community Source

## Develop Software

### Project Workspaces

- Source code management
- Track bugs, requirements
- Tasking & alerts
- Release management
- Real-time reporting
- Discussion forums
- Project wiki
- Document management

**S/W Version Control**

# Forge.mil Key Features

## Application lifecycle management (ALM) services
## for the DoD Enterprise

### Project management for distributed development teams

Tasking & alerts

Requirements management

Real-time reporting

### Software development services

Source code management

Bug, Issue Tracking

Release management

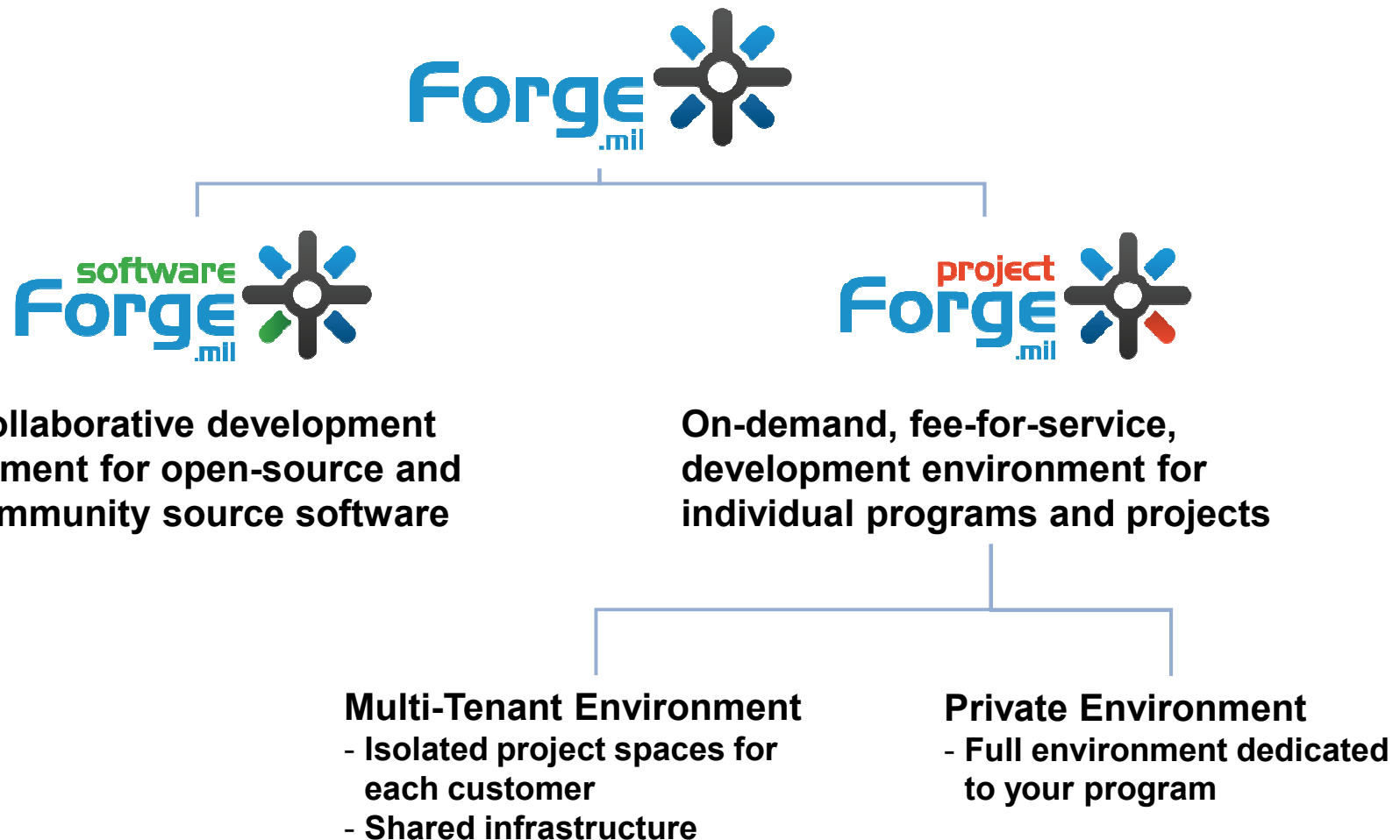### Share software, best practices, information

Project wiki

Discussion forums

Document management

# Forge.mil Offerings

**Free, collaborative development environment for open-source and DoD community source software**

**On-demand, fee-for-service, development environment for individual programs and projects**

**Multi-Tenant Environment**
- Isolated project spaces for each customer
- Shared infrastructure

**Private Environment**
- Full environment dedicated to your program

# SoftwareForge Community

- DoD Civilian, Military, DoD contractors

- PKI User Authentication

  – CAC or ECA Certificate

- Open source or DoD community source projects

  – Enable Re-use of common functionality

  – Enable cross-DoD collaboration

# When to choose ProjectForge

- ## When you need greater access control
  - SoftwareForge operates as an open community where every member has visibility into project artifacts
  - ProjectForge provides customizable, role-based access controls

- ## When you don't have the intellectual property rights necessary to share your software with the entire DoD community
  - SoftwareForge supports open-source and community-source (Government Purpose Rights or Unlimited Rights) software projects
  - ProjectForge can be used to support the development of proprietary/limited rights software projects

- ## When you want greater control over the core platform functionality
  - Site branding, project specific templates, custom extensions, product configuration

# ProjectForge Details

- Application update and maintenance, administration, and IA posture are the responsibility of DISA's Forge.mil Project Office.

- Physical infrastructure is located at DECC Montgomery and is supported, operated, and maintained, by DISA's Computing Services Division 24x7.

- Minimum annual fee
  - **On-Demand** (multi-tenant) is $60K per year
    - Up to 100 users
    - 10GB storage
    - Cost includes service desk support, basic project administrator on-boarding, platform maintenance and security
  - **Private** (dedicated single tenant) is based on a number of variables to include –
    - Number and Cost of licenses (negotiated separately with CollabNet)
    - Cost of Support (infrastructure/hosting, service desk support, application administration, user on-boarding, COOP, platform maintenance and security . . . )

- Additional value added consulting services available and provided by CollabNet

# Forge.mil Growth

- Usage Statistics (as of 28 Mar 2010)

  - SoftwareForge                                    *Average Growth Rate*
    - Users: 4800+                                   *(65 new users/week)*
    - Projects: 260+                                 *(7 new projects/week)*
    - File releases: 700+                            *(15 new releases/week)*
    - Downloads: 29000+                              *(780 downloads/week)*
    - Trackers (Req, Bugs, Issues): 8300+            *(270 trackers/week)*
    - S/W commits: 6100+                             *(110 updates/week)*

  - ProjectForge
    - Current Customers: Naval Undersea Warfare Center, Army TARDEC, Army TRADOC, DISA NCES, AF IIB
    - Users: 460
    - Projects: 21
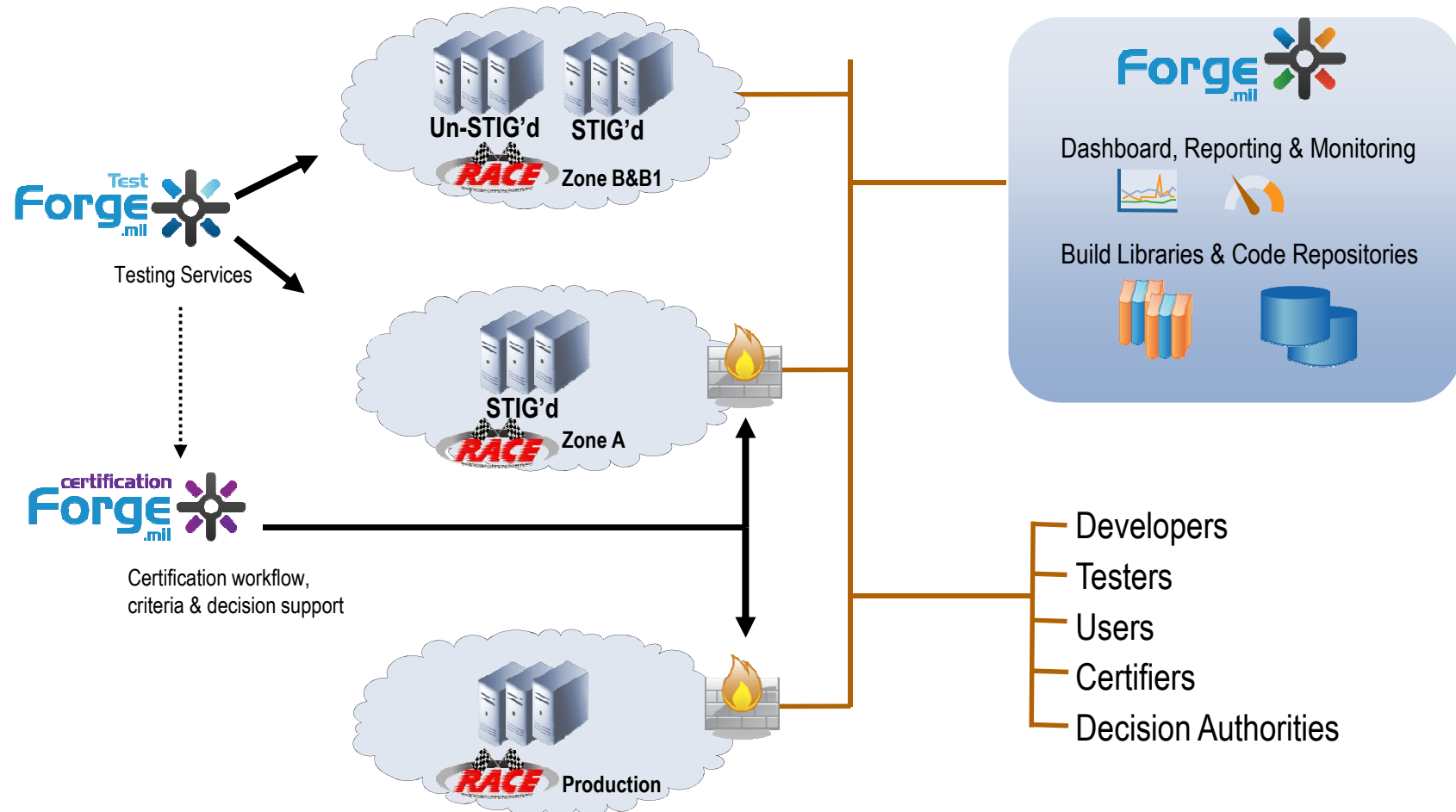    - Trackers: 1625
    - S/W commits: 629

- Industry Recognition

# Upcoming Capabilities: Promote to Production



Test **Forge**.mil — Testing Services

**Forge**.mil

- Un-STIG'd    STIG'd
- RACE    Zone B&B1
- STIG'd    RACE    Zone A
- RACE    Production

certification **Forge**.mil — Certification workflow, criteria & decision support

**Forge**.mil

Dashboard, Reporting & Monitoring

Build Libraries & Code Repositories

- Developers
- Testers
- Users
- Certifiers
- Decision Authorities

# Future Enhancements

- Web 2.0 Social Networking
- Enhanced search& discovery  functionality
  - Tagging (formal and social)
  - Consumer ranking
- Project management for agile development
- Integration bus to expose Forge.mil capabilities and integrate with external tools and information
  - Expand on existing web service interface
- Integrated continuous integration tools and support

# The Goal: Develop Within The Decision Cycle
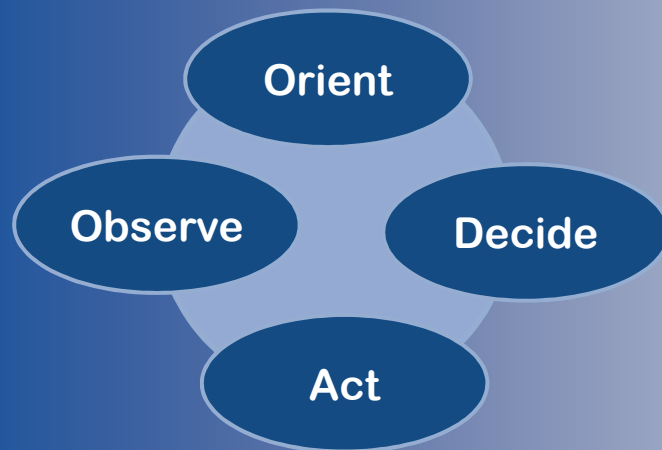


**Military Decision Making Cycle**

- Orient
- Observe
- Decide
- Act

- Our strength is in our ability to make decisions better and faster than adversaries
- Web 2.0 technologies accelerate this cycle
- Software development has to keep up

| Requirement | Procure | Code | Test | Certify | Total Time to Production |
|---|---|---|---|---|---|
| Traditional Approach | 6 Months | 6-12 Months | | 6 Months | 18-24 Months |
| Cloud Approach | 24 Hours | 2-6 Months | | Days | 3-6 Months |
| | RACE | Forge.mil | Forge.mil | RACE | RACE |

# Next Steps

- **Get an account (come by the Enterprise Infrastructure Pavilion)**

  - Navigate to https://software.forge.mil (requires a valid DoD CAC or ECA Certificate).

  - Under New Users, click on 'Create an Account'.

  - Your account is active once your email address is confirmed.

  - For info on how to obtain and install an ECA Certificate, see the FAQ – "How can I get access to Forge.mil" at https://www.forge.mil.

- **Use the resources on SoftwareForge to learn, explore and understand the capabilities**

- **Learn and explore in the SoftwareForge TestProjects (Sandbox–1 and –2)**

- **Join a Project and begin collaborating**

- **Want to establish your own SoftwareForge Project?  Request a New Project**

- **Need to establish your own ProjectForge Project?  Start information exchange with Forge.mil Business Office at businessoffice@project.forge.mil.**

- **Still have questions – contact the Forge.mil Community Management Team at community@forge.mil or community@project.forge.mil**